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EXAMINER				
LALLI, MELISSA LYNN				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/598,603

**Applicant(s)**

CHEN, YIMIN

**Examiner**

MELISSA L. LALLI

**Art Unit**

3728

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 9/05/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "approach ramp" as stated on line 3 of claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "the moveable soft underlay" as described in the specification. Although reference numeral (6) is used to denote the "moveable soft underlay", one cannot reasonably ascertain what the structure entails from the drawing. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Abstract***

4. The abstract of the disclosure is objected to because of grammatical errors. The entire abstract should be edited. Correction is required. See MPEP § 608.01(b).

***Specification***

5. The disclosure is objected to because of the following informalities: the entire specification should be edited for grammatical errors.

Appropriate correction is required.

***Claim Objections***

6. Claims 1-7 are objected to because of the following informalities: all the claims should be edited for grammatical errors. Please see the examples below as a reference.

- a. On line 1 of claim 1, "a ventilated shoe with heel" should read "a ventilated shoe with **a** heel".
  - b. On line 3 of claim 2, "through approach ramp" should read "through **an** approach ramp".
  - c. On lines 1-2 of claim 6, "the exhaust port and intake port parallel with each other" should read "the exhaust port and intake port **are** parallel with each other".
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "the sole piece" is stated on line 4 of claim 1, line 3 of claim 2, and lines 3 and 4 of claim 6. This limitation has no antecedent basis in the claims. Additionally, are the "sole" and the "sole piece" referring to the same element? If so, all references to the "sole piece" should read the "sole". Or are the "sole" and the "sole piece" two different elements? Applicant is required to clarify and amend the claim as necessary.

The limitation "the outer surface of the convex air-gather pipeline" is stated on lines 1-2 of claim 2. There is no antecedent basis for this limitation in the claim. Additionally, "convex air-gather pipeline" should read "convex air-gathering pipeline" as previously introduced on line 5 of claim 1. This will ensure consistency of the claim language. Appropriate correction is required.

The limitation "the gather point" is stated on line 6 of claim 1. The limitation "the pipe connection" is stated on line 2 of claim 3. The limitation "the top surface of the air chamber" is stated on lines 1-2 of claim 4. The limitations "the annular surface of the air chamber" and "the annular surface of the heel" are stated on lines 1-2 of claim 5. The limitations "the exhaust port and intake port", "the outside of sole piece", and "the

exhaust port" are stated on lines 1-2, line 4, and lines 3 and 4 respectively of claim 6.

There is no antecedent basis for these limitations in their respective claims. Appropriate correction is required.

In claim 7, the limitation "movable soft underlay" is vague and indefinite. It is not clear what structure is encompassed by such language.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 2 (as best understood) are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,477,626 to Kwon.

Regarding claims 1 and 2, Kwon discloses a ventilated shoe with a heel (1) comprising: several vent-slots (4a) on a sole (3 & 4), an air intake check valve (10), an air exhaust check valve (12), and an air chamber (7) located in a concave space on the heel (fig. 1), wherein the vent-slots on the sole gather together near a center of a toes transverse line on the sole (fig. 1) and a convex air-gathering pipeline (3a) is disposed between a gather point and the air intake check valve (fig. 1). An outer surface of the of the convex air-gathering pipeline (3a) is connected smoothly with the sole (3 & 4) through an approach ramp (fig. 1, any part of outsole 3 is considered to be an approach ramp).

11. Claims 1 and 2 (as best understood) are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,860,463 to Pin.

Regarding claims 1 and 2, Pin discloses a ventilated shoe with a heel (fig. 1) comprising: several vent-slots (51) on a sole (1, 4, & 5), an air intake check valve (3), an air exhaust check valve (3), and an air chamber (2) located in a concave space on the heel (fig. 1), wherein the vent-slots on the sole gather together near a center of a toes transverse line on the sole (fig. 1) and a convex air-gathering pipeline (13) is disposed between a gather point and the air intake check valve (fig. 7). An outer surface of the of the convex air-gathering pipeline (13) is connected smoothly with the sole (1) through an approach ramp (figs. 1 & 2, any part of sole 1 is considered to be an approach ramp).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1 and 2 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0010939 to Liu et al. (Liu) in view of Kwon.

Regarding claim 1, Liu discloses a ventilated shoe with a heel (100) comprising: several vent-slots (12) on a sole (10), an air intake check valve (51), an air exhaust check valve (53), and an air chamber (2) located in a concave space (fig. 16, 63) on the heel, wherein the vent-slots on the sole gather together near a center of a toes

transverse line on the sole (fig. 7), and a convex air-gathering pipeline (4). It is noted that the embodiment of fig. 16 does not display several vent-slots while the embodiment of fig. 7 does display several vent-slots; however, it would be obvious to one of ordinary skill in the art to add vent-slots to the embodiment of fig. 16 in order to enhance ventilation (paragraphs [0029] and [0038]).

Liu discloses the air-gathering pipeline disposed between a gathering point of the vent-slots and the air exhaust check valve instead of being disposed between the gathering point of the vent-slots and the air intake check valve; however, Kwon discloses a similar ventilated shoe with a heel (1) having several vent-slots (4a) on a sole (3 & 4), an air intake check valve (10), an air exhaust check valve (12), and an air chamber (7) located in a concave space on the heel (fig. 1), wherein the vent-slots on the sole gather together near a center of a toes transverse line on the sole (fig. 1) and a convex air-gathering pipeline (3a) is disposed between a gather point and the air intake check valve (fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have reversed the positioning of the air intake check valve and air exhaust check valve of Liu in order to facilitate flow of fresh air into the interior of the shoe by suctioning waste air from inside the shoe and expelling it into the atmosphere as taught by Kwon (col. 3, lines 42-49) and as a matter of obvious design choice and intended use. Additionally, it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Subsequent to the above modification, any references hereinafter to the air



exhaust check valve (53) and air intake check valve (51) will be reversed as the air exhaust check valve (51) and the air intake check valve (53).

Regarding claim 2, Liu discloses an outer surface of the convex air-gathering pipeline (4) is connected smoothly with the sole (6) through an approach ramp (fig. 16, any part of lower sole 6 is considered to be an approach ramp).

14. Claims 3-6 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu and Kwon as applied to claims 1 and 2 above, and further in view of Pin.

Regarding claim 3, Liu and Kwon do not disclose a latex pipe being sleeved on a pipe connection between the air intake check valve and the air chamber; however, Pin discloses a similar ventilated shoe with a heel (fig. 1) having an air intake check valve (3) and an air chamber (2). A pipe (35) is sleeved on a pipe connection between the air intake check valve and the air chamber (figs. 1, 3, & 4). It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the pipe sleeve of Pin between the air intake check valve and air chamber of Liu and Kwon in order to prevent collapse of the pipe as taught by Pin (col. 2, lines 50-52).

A material forming the pipe sleeve is not specified; however, Official Notice is taken that it is old and conventional to use latex in the art to form pipe sleeve structures. It would have been obvious to one having ordinary skill in the art at the time of the invention to have formed the pipe sleeve of latex for its durable, hygienic, and economical qualities. It has been held to be within the general skill of a worker in the art

to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 4 and 5, Liu discloses a top surface of the air chamber (2) being of a convex shape (figs. 9 & 16). An annular surface of the air chamber and an annular surface of the heel are on a same plane (fig. 15).

Regarding claim 6, Liu discloses an exhaust port (21) and an intake port (22) which are parallel with each other (fig. 16) and a convex L-shaped installation groove 62) which is set on the sole (6) between the exhaust port and an outside of the sole piece (figs. 16 & 17). The exhaust port is connected to the air exhaust check valve (51) through a soft pipe (3) mounted on the L-shaped installation groove and the exhaust valve is opened to the atmosphere.

15. Claims 3-5 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Pin.

Regarding claim 3, Pin discloses a pipe (35) being sleeved on a pipe connection between the air intake check valve (3) and the air chamber (2) but does not specify the pipe being latex. Official Notice is taken that it is old and conventional to use latex in the art to form pipe sleeve structures. It would have been obvious to one having ordinary skill in the art at the time of the invention to have formed the pipe sleeve of latex for its durable, hygienic, and economical qualities. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 4 and 5, Pin discloses a top surface of the air chamber (2) being of a convex shape (fig. 1). An annular surface of the air chamber and an annular surface of the heel are on a same plane (fig. 1).

16. Claim 7 (as best understood) is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/ Kwon/ Pin as applied to claims 1-6 above, and further in view of US 1,576,767 to Chauncey et al. (Chauncey).

Regarding claim 7, Liu, Kwon, and Pin do not disclose a moveable soft underlay inside the soft pipe; however, Chauncey discloses coating the interior surfaces of pipes with a soft moveable material such as rubber or latex (lines 16-49). It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the soft moveable coating of Chauncey inside the soft pipe of the modified ventilated shoe with a heel of Liu/ Kwon/Pin in order to insure hermetic sealing and protect the pipe from internal damage as taught by Chauncey (lines 11-15).

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fukuoka, Buttigieg, Cho, and Shiang have been included because they are relevant to the claimed subject matter.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA L. LALLI whose telephone number is (571)270-5056. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on (571) 272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MLL  
6/5/09

/JILA M MOHANDESI/  
Primary Examiner, Art Unit 3728